

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matters of)	
)	
Wireless E911 Location Accuracy)	PS Docket No. 07-114
Requirements)	
)	
E911 Requirements for IP-Enabled)	WC Docket No. 05-196
Service Providers)	

COMMENTS OF VERIZON

Verizon¹ supports the Commission's efforts to ensure that customers of Voice over Internet Protocol (VoIP) services have the benefit of robust E911 capabilities. The Commission's VoIP 911 rules, released in June 2005, are directly responsible for the fact that E911 service is now available to more than 95 percent of customers of interconnected VoIP services.² That service provides public safety answering point (PSAP) call takers with the VoIP user's "civic address" and, assuming that nomadic customers update their Registered Location when they change the location of their VoIP equipment, the location information provided to PSAPs is equivalent to that provided by traditional circuit-switched telecommunications providers.

The Commission should not impose new automatic location requirements on VoIP providers at this time, and should not impose location accuracy standards on VoIP providers until it knows what capabilities are technically and commercially feasible.³ The VoIP industry has been working toward developing standards associated with automatic location capabilities

¹ The Verizon companies participating in this filing ("Verizon") are the regulated, wholly owned subsidiaries of Verizon Communications Inc.

² First Report and Order and Notice of Proposed Rulemaking, *IP-Enabled Services, E911 Requirements for IP-Enabled Service Providers*, 20 FCC Rcd 10,245 (2005)("June 2005 Order")

³ June 2005 Order ¶ 18.

for nomadic VoIP services. The industry has made significant progress, but those efforts could be delayed if the Commission were now to require the industry to take a different approach and adopt the wireless requirements for providing location by latitude and longitude. Instead, the Commission should monitor the VoIP industry's ongoing efforts and continue its practice of reaching out to industry forums. This approach will enable the Commission to remain fully informed of industry efforts, including the solutions being developed, testing for technical and economic feasibility and usefulness, and any issues presented. By doing so, the Commission will encourage prompt deployment of useful and feasible industry solutions, and will be in a position to take further steps to facilitate implementation of future solutions, if needed. At the same time, the Commission will avoid imposing requirements that do not bring additional benefits to consumers, or that bring costs that outweigh the benefits.

1. More than ninety-five percent of VoIP customers have E911-capable service as a result of the Commission's June 2005 Order. The Commission's June 2005 Order clearly and urgently conveyed the Commission's commitment to making E911 capabilities available to consumers of VoIP services, and imposed stringent deadlines on the industry for achieving that goal. The industry worked diligently on an accelerated time table to implement and deploy E911 capabilities for VoIP. As a result, virtually all customers of facilities-based interconnected VoIP services and approximately 95 percent of customers of "over-the-top" interconnected VoIP services now have E911 service.⁴ That service directs 911 calls to the appropriate PSAP through selective routers, and provides the PSAP with the caller's location and call-back number.

⁴ See, e.g., AT&T Letter, WC Docket No. 05-196 (August 9, 2007) ("As of July 31, 2007, approximately 99% of AT&T CallVantage customers have Enhanced 911"); Vonage Notice of Ex Parte, WC Docket No. 05-196 (June 29, 2007) ("Vonage now provides basic or enhanced 911 service to 97% of its subscriber lines"); Verizon Compliance Letter, WC Docket No. 05-196 (July 30, 2007) ("Verizon provides E911 capability to all of its two-way interconnected Verizon Voice over IP customers at their fixed locations" and "Verizon is able to offer E911 services to approximately 94 percent of its VoiceWing customers.")

Moreover, the location information provided to the PSAP is the caller's street or "civic" address, as registered by the VoIP customer (the "Registered Location"). Thus, the location information provided to the PSAP is equivalent to that provided by traditional circuit-switched telecommunications providers.

For nomadic VoIP customers, the location information available to the provider and forwarded to the PSAP is the customer's Registered Location. Several major providers of interconnected VoIP service have taken additional steps to enhance the accuracy and reliability of their customers' Registered Locations. For example, as the Commission is aware, Verizon has implemented a capability to detect when a customer's VoiceWing telephone adapter is disconnected from the network. If Verizon detects that the customer's adapter has been disconnected,⁵ the customer's service is suspended, with the exception of 911 calls and calls to customer service. At the same time, the customer is sent an e-mail and a message is posted to the customer's Personal Account Manager⁶ asking the customer to confirm his or her existing Registered Location, or register a new location.

While in suspend status, if the customer attempts to make any calls, other than 911 calls or calls to customer service, Verizon will intercept the call and play an announcement that will inform the customer of the service suspension. If the customer confirms that his or her Registered Location has not changed, full service will be restored by Verizon. If the customer indicates that he or she has moved from the existing Registered Location, service will remain

⁵ Disconnection from and reconnection to the network do not necessarily mean that a customer has changed his or her Registered Location. A telephone adapter can be disconnected from and reconnected to the system for a variety of reasons – for example power outages, moving the adapter between locations within the customer's home, rebooting the adapter to clear a trouble, ISP connectivity outages or planned maintenance.

⁶ The Personal Account Manager is a web page where a VoiceWing customer can view his or her log of incoming, outgoing, and missed calls; check voice mails; access his or her personal phone directory; and activate or turn off various features such as International Call Blocking, Call Forwarding, and Simultaneous Ring.

suspended unless and until the customer registers a new address in an area where Verizon can provide 911 service. Other interconnected VoIP services offered by Verizon include similar detection capabilities.⁷ This helps to ensure that the customer's Registered Location is accurate and 911 calls will continue to route to the appropriate PSAP.

2. The Commission should not impose new automatic location requirements on VoIP providers at this time. Several industry groups in the United States and European Union have been working toward developing standards that will improve the provision of location information to PSAPs. For example, Verizon has been part of an active industry effort through the Emergency Service Interconnection Forum (ESIF), a committee of the Alliance for Telecommunications Industry Solutions (ATIS), to develop a series of standards related to the provision of location information to PSAPs. ESIF has made significant progress and has sent a Technical Recommendation covering recommended protocols for Location Acquisition to ATIS for Initial Closure pursuant to the ATIS process. Work on additional necessary standards is under way.

If the Commission were now to adopt rules requiring interconnected VoIP providers to implement the wireless requirements for providing location by latitude and longitude, it could result in a significant delay in the availability of any capability to automatically detect a caller's location. If the Commission were to adopt the wireless requirements for VoIP providers, the industry would need to divert its resources and efforts from the current standards work, and start anew on developing a method for providing latitude and longitude and transmitting that information to PSAPs. Today's GPS technologies are unsuitable because it can be difficult to maintain the required satellite communication inside buildings – and VoIP services are likely to

⁷ See also Letter from Robert W. Quinn, Jr. to Marlene H. Dortch (October 7, 2005) (describing AT&T's "Heartbeat Solution").

be used primarily indoors. Even if GPS could be made to work reliably indoors, the CPE currently used by VoIP customers does not contain GPS capability. As a result an expensive and time consuming effort to convince customers to buy new equipment would be needed. Other possible solutions, such as those mentioned by the Commission in the June 2005 Order,⁸ present issues of technical and commercial feasibility that are unknown, but potentially serious or fatal.

Finally, the Commission should carefully consider which services warrant any new requirements it decides to impose. For example, certain business or enterprise customers use communication devices where the end user has no expectation of emergency communications.⁹ Users of these devices do not rely on such services for E911 or 911 capability and there is little to no risk that someone will assume that such devices provide the same capability as traditional phones. There may be no need to apply further E911 rules to these services; indeed, doing so could present unique technical challenges or even hinder the deployment or availability of these innovative services.

In summary, to improve the quality and reliability of the E911 services available to customers of interconnected VoIP services, the Commission should continue to monitor and enforce compliance with its existing E911 rules for interconnected VoIP providers. In addition, the Commission should continue to monitor developments with respect to technologies and standards for providing automatic location capabilities for E911 service provided by interconnected VoIP providers. The Commission can do this by continuing its current practice of outreach to industry groups and forums involved in developing new and more advance

⁸ June 2005 Order ¶ 57.

⁹ These devices include newer services, such as soft-phones. Soft phone services are software driven applications that run on personal computers, often times laptops. In other instances business or enterprise end users served by may use large desk phones not intended for mobile use, so that, for example, requirements for automatic location capability would make no sense.

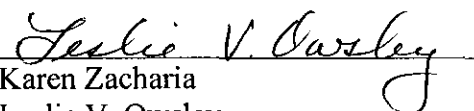
solutions (as the Commission does today). By doing so, the Commission will remain informed about promising technologies, the promulgation of standards, and the progress that the industry is making toward technically and economically feasible solutions. The Commission will also remain aware of the challenges these new technologies may pose, both for VoIP service providers and for consumers.

Conclusion

The Commission's June 2005 Order has directly resulted in ensuring that customers of interconnected VoIP services can benefit from E911 capabilities. The industry has been working diligently to develop more advanced solutions to provide automatic location capability. The Commission can facilitate these efforts by continuing its practice of reaching out to industry forums, in order to remain fully informed of industry efforts, and by avoiding the imposition of requirements that do not bring additional benefits to consumers, or that bring costs that outweigh the benefits.

Respectfully submitted,

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